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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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SUGHRUE MION ZINN
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EXAMINER

ABELSON, RONALD B

ART UNIT PAPER NUMBER

2616

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/287,570

Applicant(s)

USHIROKAWA ET AL

Examiner

Ronald Abelson

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 168-207 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 169, 170, 172, 173, 175, 176, 178-185, 187, 188, 190-199, 202, 203, and 205 is/are allowed.
- 6) ☒ Claim(s) 168, 171, 174, 177, 186, 189, 200, 201, 204, 206 and 207 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2616

Drawings

1. The drawings are objected to because of misspellings in fig. 10. "Nomal" must be changed to "Normal" and "Trasmission" must be changed to "Transmission". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 168, 171, 174, 177, 186, 189, 200, 201, 204, 206, and 207 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art 'AAPA' in view of Hirohashi (US 5,600,471).

Regarding claims 168, 171, 174, 177, 186, 189, 200, 201, 204, AAPA teaches providing a vacant period, in which no communication data is present, in a data transmission from a base station to a mobile (fig. 10 T4, pg. 4 lines 14-18).

AAPA teaches inserting a first pilot signal, such that a beginning of the first pilot signal is contiguous with an end of a data transmission prior to the vacant period (fig 10 box S_j, fig. 11E: D2, PL, pg. 6 lines 17-21). Note, by inserting fig. 11E into fig. 10 box S_j, the beginning of the first pilot signal

Art Unit: 2616

'PL' is contiguous with an end of a data transmission 'D2' prior to the vacant period.

AAPA teaches inserting a second pilot signal, such that the end of the second pilot signal is before the beginning of a data transmission after the vacant period (fig. 10 box S_k , fig. 11D: PL, D1, pg. 6 lines 14-17).). Note, by inserting fig. 11D into fig. 10 box S_k , the end of the second pilot signal is before the beginning of a data transmission after the vacant period.

AAPA teaches performing inter-frequency measurement during the vacant period (pg. 4 lines 14-17).

AAPA does not explicitly teach the end of the second pilot signal is contiguous with an end of a data transmission.

Hirohashi teaches the end of a pilot signal is contiguous with an end of a data transmission (fig. 5B, 5C, col. 10 lines 23-27).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of AAPA by moving the placement of the data (fig. 11D box D1) so that it is contiguous with the pilot symbol (fig. 11D box PL). This modification can be performed in software. This modification would benefit the system by allowing the receiver to recover the data more quickly.

Regarding claims 206 and 207, the inter-frequency measurement during the vacant period is performed by the mobile station (AAPA: fig. 8, frequency carriers 401, 402, pg. 1 line 25 - pg. 2 line 2, fig. 10, frequency carrier, pg. 4 lines 14-17). Note, the frequency carrier carriers 401 and 402 are being transmitted from the base station to the mobile.

Response to Arguments

4. Applicant's arguments with respect to amended independent claims 168, 171, 174, 177, 186, 189 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS

Art Unit: 2616


of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

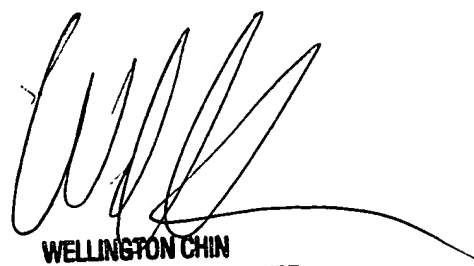
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (571) 272-3165. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ronald Abelson
Examiner
Art Unit 2616


WELLINGTON CHIN
SENIOR PATENT EXAMINER